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I. Executive Summary

Overview:

The Kasigluk Clinic, built in 1984, is 28' x 48' building with small vestibules for a total of 1372 SF. It is one of the standard clinics build in the last 20 years in the YKHC Region. The clinic is typical construction the time it was built and is very outdated for the village needs. It has a waiting room, toilet room, furnace alcove in the waiting room, office/triage area, two exam rooms, kitchen/supply area, water storage tank room, an administrative office area, small itinerant office/triage room, and second toilet/bath used as a storage area. It has a front entry with a plywood vestibule, and rear entry with minimal plywood vestibule. There is no trauma room and access is very limited. The simple wood frame construction on a 6x6 treated wood post and pad system directly on the tundra is similar to many clinics constructed in the YKHC region over the last 20-30 years. It has been modified due to heating problems with all exposed internal piping, and is in extremely poor condition.

The water and sewer have never been hooked up and is supplied by hauled water and honey bucket disposal system used by the entire village. There are no sinks in the exam rooms and only use of kitchen sink with gray water dumped on the ground. The clinic is quite small for the size of the village with over 500 residents and growing. Current population is 543 residents.

Renovation/Upgrade and Addition:

The Clinic will require a 1130 SF addition to accommodate the current need and Alaska Rural Primary Care Facility space guidelines. This addition would require some reconfiguration of the site and additional new fill and pad work. There would also need to be major renovation and upgrade of the existing clinic. As can be seen from the documentation enclosed, the existing clinic will require major renovation to meet current code and standards as well. The cost of renovation and addition will far exceed the cost of a new clinic facility.

New Clinic:

The city has provided a new site, adjacent to the new Village Corporation Building and new housing development. It is available immediately for a new clinic. The community has proposed that a new larger 2500 SF Denali Commission Large Clinic can be constructed on the new site. We have included preliminary site plan for this site and a new 2500 SF clinic.

The proposed site does not have existing utilities, however, the village is in process of a complete Village system. There is water haul available and the sewer lagoon for the school is across the road and behind the Village corporation building and could be piped to if needed during the interim. The new and is in easy access to the entire community and other community related facilities

The community has completely supported this effort and have met extensively to assist in new site issues and to resolve any site considerations of the site presented.

II. General Information

A. The Purpose of the Report and Assessment Process:

ANTHC has entered into a cooperative agreement with the Denali Commission to provide management of the small clinic program under the Alaska Rural Primary Care Facility assessment, planning, design and construction. Over 200 clinics will be inspected through the course of the program. The purpose of the Code and Condition survey report is to validate the data provided by the community in the Alaska Rural Primary Care Facility Needs Assessment and to provide each community with a uniform standard of evaluation for comparison with other communities to determine the relative need between the communities of Alaska for funding assistance for the construction of new or remodeled clinic facilities. The information provided in this report is one component of the scoring for the small clinic RFP that the Denali Commission sent to communities in priority Groups 1 and 2. The information gathered will be tabulated and analyzed according to a set of fixed criteria that should yield a priority list for funding. Additionally, the relative costs of new construction vs. remodel/addition will be evaluated to determine the most efficient means to bring the clinics up to a uniform standard of program and construction quality.

A team of professional Architects and Engineers traveled to the site and completed a detailed Field Report that was reviewed by all parties. Subsequently, the team completed a draft and then final report of the facility condition.

B. Assessment Team:

Tom Humphrey, Capital Projects Director, and Senka Paul, the administrator for Yukon Kuskokwim Health Corporation organized the assessment team. The team for this site visit was Senka Paul, YKHC; Gerald L. (Jerry) Winchester, Architect, Winchester Alaska, Inc.; Bob Jernstrom, PE, Jernstrom Engineering, and Matt Reardon, ANTHC. Team members who assisted in preparation of report from information gathered included members of the field team above and Ben Oien PE, Structural Engineer; Eric Cowling, PE, Electrical Engineer; Carl Bassler PE, Civil Engineer; and Estimation Inc.

C. Report Format:

The format adopted is a modified "Deep Look" format, a facilities investigation and condition report used by both ANTHC and the Public Health Service, in maintaining an ongoing database of facilities throughout the country. Facilities are evaluated with respect to the requirements of the governing building codes and design guidelines. Building code compliance, general facility condition, and program needs have been evaluated. The written report includes a floor plan of the clinic, site plan as available, and new plans for renovation/upgrade or completely new clinics. Additional information was gathered during the field visit which includes a detailed Field Report and building condition checklist, sketches of building construction details, investigations of potential sites for new or replacement clinics, and proposed plans for village utility upgrades. This information is available for viewing at ANTHC's Anchorage offices and will be held for reference.

D. The Site Investigation:

On June 14, 2001, the team flew to the site and made observations, took photos, and discussed the needs with on-site personnel for the facility. Approximately four hours was spent on site, with sufficient time to investigate foundations, structure, condition, mechanical and electrical systems, and to interview the staff to assess current and projected health care needs.

Interviews were conducted with the Natalia Tommy and Sally Kilongak, Health Aides, and other city residents, including tribal administrator Phil Kusayak. The city and tribal staff provided information on the existing building, site, and utilities. Additional review of existing data from YKHC files from physician's assistants, community health aides, travel clerks, dentists, specialty clinic providers, and medivac teams. These interviews provided clear understanding of the needs of the village, the clinic facility, and the users of the facility.

The Kasigluk community has reviewed the use of a Denali Commission Large Health Clinic design adapted to the Kasigluk Sites. The site is secured adjacent to the existing health clinic and city facilities.

II. Clinic Inspection Summary

A. Community Information:

Population: 543 (2000 Census)

Unincorporated City, Unorganized Borough, Lower Kuskokwim School District, Calista Corporation

Location:

Kasigluk is on the Johnson River in the Kuskokwim River Delta, 26 miles northwest of Bethel. The community is comprised of Old and New Kasigluk, surrounded by the Johnson River and a network of lakes. It lies at approximately 60d 52m N Latitude, 162d 32m W Longitude (Sec. 02, T009N, R075W, Seward Meridian). The community is located in the Bethel Recording District. The area encompasses 19 sq. miles of land and 0 sq. miles of water.

History:

It is an Eskimo village listed as one of the "Tundra Villages" in the 1939 U.S. Census, with a population of 66. A post office was established in 1962. It incorporated as a city in 1982, but dissolved in 1996 in favor of the traditional village council.

Culture:

Kasigluk is a Yup'ik Eskimo community practicing a fishing and subsistence lifestyle. The sale or importation of alcohol is banned in the village.

Economy:

The school, commercial fishing, retail businesses and village government provide the majority of employment in Kasigluk. Subsistence activities contribute significantly to household diets. 46 residents hold commercial fishing permits, mainly for salmon set net and herring roe fisheries. Poor fish returns since 1997 have significantly affected the community.

Facilities:

Treated well water is hauled from the washeteria, and individual wells are also available. The new Kasigluk area known as Akula Heights uses the school well. Honeybuckets are hauled to sewage bunkers. Homes are not plumbed, and residents are reliant on the washeteria for bathing and laundry. A Master Plan is being completed for water and sewer system improvements. The landfill does not meet DEC standards, and is located on a flood plain. Electricity is provided by Nunapitchuk, although the village would like a local electric system.

Transportation:

A State-owned 1,950' lighted gravel airstrip provides chartered or private air transportation year-round. The airport is undergoing major improvements, including an extension of the runway to 3,000'. Locals use skiffs to travel to Bethel and other area villages during the summer, and snowmachines in the winter. Although there are no docking facilities, barges from Bethel deliver fuel and supplies during summer months.

Climate:

The area's precipitation averages 16 inches annually, with snowfall of 50 inches. Summer temperatures range from 62 to 42; winter temp.

B. General Clinic Information:**Physical Plant Information:**

The existing Kasigluk Clinic was completed in 1984 and occupies 1372 sq. ft. (See attached Plan) There is no trauma room and access is impossible to the exam rooms from the either entry except through two other rooms. The simple wood frame construction on a 6x6 treated wood post and pad system directly on the tundra is similar to many clinics constructed in the YKHC region over the last 20-30 years. . It has been modified due to heating problems with all exposed internal piping, and is in extremely poor condition.

The clinic has a waiting room, toilet room, and furnace alcove in the waiting room, office/triage area, two exam rooms, kitchen/supply area, water storage tank room, an administrative office area, small itinerant office/triage room, and second toilet/bath used as a storage area. It has a front entry with plywood uninsulated vestibule and non-code compliant stair that is really sloping. It has a rear entry with plywood, un-insulated vestibule and a non-code stair. There is no ramp to the facility and neither of the entrances meets the requirements for gurney access. There is no true circulation system in the building and no legal second exit. The rear door is from the office area and must be accessed through the office. The itinerant office in from has only a partial wall partition and neither of the exam rooms have doors or privacy, only a plywood dividing wall.

The water and sewer have never been hooked up and is supplied by hauled water and honey bucket disposal system used by the entire village. There are no sinks in the exam rooms and only use of kitchen sink with gray water dumped on the ground.

Clinic program usage information:

Patient records indicate the clinic sees an average of 360 patients per month in 2000, and 234 patients per month in 1999 and in 1998. This is an over a 50% increase in patient encounters in the last two years. There are 3 full or part time staff and 1 Itinerant or contract staff equivalent. The office space provided is not adequate and all the office functions, travel, files, and use by all health aides is accomplished in the single office area. There are two exam rooms, and the office/triage to see patients. The remainder of the facility is utilized for storage of medical items, office, and small circulation. Storage is completely inadequate; and the facility is very poorly arranged for the medical program currently being delivered.

C. Program Deficiency Narrative:**1. Space Requirements and Deficiencies:****Space Comparison Matrix - Current Kasigluk Actual SF to Denali Commission Large Clinic**

Alaska Rural Primary Care Facility

Purpose / Activity	Current Clinic						Large Clinic					
	Designated Itinerant			Actual Net SF			ARPCF SF			Difference		
	Size	No.	Net Area (SF)		No.	Net Area (SF)	Size	No.	Net Area (SF)	Size	No.	Net Area (SF)
Arctic Entries				20	1	20	50	2	100			80
Waiting/Recep/Closet	150	1	150	211	1	211	170	1	170			-41
Trauma/Telemed/Exam	200	1	200			0	200	1	200			200
Office/Exam				90, 83, 93	3	236	150	2	300			64
Admin./Records				140	1	140	110	1	110			-30
Pharmacy/Lab						0	80	1	80			80
Portable X-ray						0	40	1	40			40
Specialty Clinic/Health Ed/Conf				65	1	65	150	1	150			85
Patient Holding/ Sleeping Room				Kitchen - 71	1	71	150	1	150			79
Storage	150	1	150	44	1	44	120	1	120			76
HC Toilet				95, 36	2	131	60	2	120			-11
Janitor's Closet						0	30	1	30			30
Subtotal Net Area			500			918			1570			652
Circulation & Net/Gross Conv. @ 45%						420			707			287
Subtotal (GSF)						1338			2277			939
Mechanical Space @ 8%				34	1	34			182			148
Total Heated Space			500			1372			2459			1087
			0									
Morgue (unheated enclosed space)							30	1	30			30
Ext. Ramps, Stairs, Loading			HC Accessible			As Required			As Required			As Required

- Overall space deficiencies: The size of the facility is about 1130 SF short of the ARPCF space requirements. Based on the YKHC efficiently designed facility to meet ARPCF requirements, the existing facility is still just under 1000 sf short of the needed space.
- Specific room deficiencies: There is minimal vestibule, no trauma room, minimal exam room space, inadequate office space, and no itinerant sleeping area other than the waiting room, and minimal storage. These deficiencies in combination with other small spaces leave the clinic very program deficient.
- Other size issues: Mechanical room is non-existent and is located in the lobby. There is a small shed building at the rear of the facility that is unheated exterior storage areas.

2. Building Issues:

- Arctic Entries - The main entry is not accessible for ADA and is impossible to get a gurney into the room. It does not have a legal ramp and lack of room. The rear entry has a no ramp either and is also completely non-compliant including the railings.

- b. Waiting / Reception –The waiting area contains a couch, a chair, table and set of bunk beds, the furnace, a small storage cabinet and has equipment, and other items stored in the room. It is not large enough for anything else since it is so full of secondary items. Patient use is severely restricted.
- c. One Exam – There are two exam rooms available. The rooms though sized adequately are separated by only a plywood partition and have no doors on either exam room for privacy. Neither room is accessible for gurney, nor meets the standards for exam room space. The second toilet room is accessible from one of the exam rooms. There are no sinks in either exam rooms and with no running water there are none usable in the facility.
- d. Office / Triage – This room has a desk, copier, fax, a single patient chair. The room is part of the circulation to the exam rooms and back office area. There is no privacy and area is used extensively for storage. The electrical service is totally inadequate for this room and the facility.
- e. Administration / Records – There is the single room that is used for all administrative functions as well as Pharmacy, and access to rear exit. The patient records are stored in the corridor from the Office/Triage to the Exam rooms.
- f. Pharmacy / Lab – There is no Pharmacy since it is part of the Administration / Records room described above and medicines are stored in locked cabinets.
- g. Specialty Clinic / Health Education / Conference - This function is completed in the existing two exam rooms and a small office/triage off of the waiting room.
- h. Patient Holding / Sleeping Room – There is no sleeping room and only bunk bed in the waiting area for itinerant staff.
- i. Storage – Storage is adequate and is and is contained in the storage in the rear and the and in the vestibules to the point of major fire exiting problems. The storage is very dysfunctional due to location, lack of shelving and storage systems.
- j. HC Toilet Facilities – A single toilet room serves patients and clinic staff. The toilet and sink are abandoned due to no water and sewer system for a honey bucket and hand wipes and do not meet any of the ADA or UPC requirements. Entry door width was too narrow, and the abandoned toilet and sink lacked sufficient clearances and were of incorrect fixture type. There is a tub in the second bathroom and all the fixtures are covered up with storage. All these areas are very unsanitary due to deteriorating materials.
- k. Janitors Room – There is no specific janitor room or janitor's sink and there is no water service to provide this amenity.
- l. Mechanical/Boiler room – There in no Mechanical room or Boiler room. The furnace sets in the waiting room and is exposed to patients. This is a very unsafe condition and does not meet code. There is no 1 hr. separation.
- m. Ancillary Rooms – There is a water tank room with water heater that has never been utilized due to lack of water service. There are no ancillary rooms as all space is used to

maximum capacity including storage rooms, exam rooms, toilet rooms, office, waiting room, corridors, and vestibules.

3. Functional Design Issues

This facility is functionally and totally inadequate for its intended use. The spaces do not meet the functional size requirement, access is non-compliant, sanitation and patient care are very poor due to deterioration of materials, and condition of the facility. The ability to perform required medical functions within the facility is severely hampered by lack of storage, and not adequate sinks.

4. Health Program Issues

a. Patient comfort and privacy:

The front door of the clinic is through a very small vestibule that is inadequate to defer the heat loss. There is no ADA access or gurney access. The waiting room is cold every time the door is opened and the cold air migrates into the clinic where patients are being attended. There is absolutely no patient privacy since all the doors are hollow core or non-existent and there are air openings over the top of some partitions for air circulation.

b. Medical/Infectious Waste

This is being handled in a very basic method and is hampered by the small non-functional facility.

c. Infection Control

This is being completed with minimal long-term control due to lack of facilities. Floor materials are very worn out and replaced with other materials and sizes allowing for control problems. There is no rubber base material, and walls is mostly of plywood and ceiling materials are also plywood and are also considerably lacking in cleaning ability. There is neither janitor sink for general cleaning nor sinks in the exam room for practioner use.

d. Insect and Rodent Control

None noted or investigated

e. Housekeeping

The difficulty in cleaning and housekeeping in such a congested facility is understandable and is being done at the best level currently possible.

5. Utilities

a. Water Supply

The existing water hauling system from city tank provides the clinic water.

b. Sewage Disposal

The system is honey bucket to city disposal and school lagoon.

c. Electricity

See Electrical Narrative

d. Telephone

A single phone line services the clinic and is inadequate for current needs.

e. Fuel Oil

The fuel system is not adequate with some leaking having occurred around the existing above ground tank. There is not protection or containment for possible spilling.

D. Architectural / Structural Condition

1. Building Construction:

a. Floor Construction:

The floor is 2 x 10 joist over a 6 x 6 floor beams. The beams are supported with 6 x 6 posts with 3 x 12 continuous pads under the posts. There is R-19 insulation in the floor with 3/8" plywood on the bottom of the joist. There is abnormal amount of settlement and heaving that has caused doors to stick and floor to be uneven. There is approximately 10 inches of differential in the floor elevations.

b. Exterior Wall Construction:

The walls are 2 x 8 construction at 24" oc. The sheathing is T-111 plywood siding painted and R-19 fiberglass batt insulation with vapor barrier 1/4" paneling on the interior.

c. Roof Construction:

The roof is a full-span truss at 24" oc with plywood deck and metal roof. The insulation is approximately 12" or R-38 of batt insulation that is minimal in this climate.

d. Exterior Doors:

The exterior doors are residential insulated metal. They are in very poor shape and need replacement.

e. Exterior Windows:

Windows are of thermo-pane wood casement windows and do not all open.

f. Exterior Decks, Stairs, and Ramps

There are minimal Arctic entries. There is no landing at the front entrance outside the main door, and the rear door and stair are deteriorating. The front stairs rise and run do not meet code and is also deteriorating. There is no ramp and all stairs do not meet ADA for handrails and landings.

2. Interior Construction:

a. Flooring:

The flooring is sheet vinyl over plywood. It has been replaced in many areas and is deteriorated in most areas. Duct tape has been used to patch the flooring that is worn out. Entire replacement of sub-floor and finish is required to meet sanitary requirements.

b. Walls:

The walls are of 2x4 wood construction, with no sound insulation. The type of wall construction does not provide for patient privacy in any way. The finish is 1/4" paneling and

is in serious need of repair and replacement. There are many cracks in wall system due to settlement and shifting building.

- c. Ceilings:
The ceilings are plywood and needing repair. The ceiling is not easily washed and presents a serious sanitation issue.
- d. Interior doors:
The interior doors are of hollow core that provides minimal construction durability and they are all in need of repair. Additionally, these doors are not acceptable for patient privacy and sound control. There has been floor shifting and most of the doors do not close properly. They are not ADA accessible and the hardware does not meet ADA requirement.
- e. Casework:
The upper casework is non-existent and the lower casework is of very poor construction. Tops are of plywood and do not fit to walls and are seriously deteriorating. The sanitary issues are very significant with the counters being of such poor construction. Need full replacement.
- f. Furnishings:
The furnishings are very old and worn. There are two chairs and a couch in the waiting room and a variety of mismatched and old desks, chairs, and tables for other use. The exam tables are older as well.
- g. Insulation:

Floor Insulation		R-19
Wall Insulation	R-19	
Attic/Roof Insulation		R-38
Attic Ventilation		Gable Vents only
- h. Tightness of Construction:
The facility is of generally poor overall construction, with numerous leaks in construction system at doors, floor, roof, and sills.
- i. Arctic Design:
The vestibules are minimal, orientation is OK, and siting of the clinic is adequate. The site is adequate for normal arctic design.

3. Structural

- a. Foundations
The foundation is treated 6 x 6 posts on 3 x 12 pads for support. Pads have settled substantially, walls are racked, and the building has floor level deviation and has substantial cracking on the interior. There is no hold down strapping and the bracing is loose or missing. In general the foundation needs substantial upgrade work for a new useful lifetime or replacement.
- b. Walls and Roof:
The T-111 walls and metal roof seem in relatively stable and adequate condition.

c. Stairs, Landings, and Ramps

These elements are in poor condition and need of replacement with signs of rotting and deterioration of structural elements.

E. Mechanical Condition

1. Heating System

a. Fuel Storage and Distribution

The clinic's heating fuel oil storage tank is located adjacent to the building and not a minimum of 5 ft. as required by code. The 550-gallon storage tank does not have the proper venting, piping, valving, or tank support as required by code.

b. Furnace

A single residential grade, oil-fired furnace provides heating for the entire clinic. The furnace is in poor shape with missing controls and systems to meet the needs of the Health Clinic. There is severe corrosion on the furnace stack and the vent assembly is in poor condition. There is no combustion air openings for the furnace which is against code. The furnace is also located in a sleeping room which is not allowed. There are no additional heaters in the clinic to assist with heating.

c. Heat Distribution System

The furnace supply air duct distribution system is routed through the attic space. The return air makes its way back to the furnace through the clinic rooms. The supply air diffusers are located in the ceiling.

2. Ventilation System

a. System

There is no mechanical ventilation system. Ventilation is by operable windows. The windows do not open easily and as such do not provide effective ventilation. Some of the rooms do not have operable windows and as such have no ventilation.

b. Exhaust Air

A wall mounted exhaust fan services the toilet room. This fan is not ducted outside, but is ducted into the attic space. The kitchen range is not provided with a code required range hood and exhaust fan.

c. Outside Air

Some of the rooms with operable windows have broken or missing operators so the windows cannot be opened.

3. Plumbing System

a. Water System

There is no water system in the clinic. Water is stored in large cans for use by the occupants.

b. Sewer System

There is no sanitary sewer system in the clinic. A honey bucket is all that they have for the needs of the clinic.

- c. Fixtures
There are plumbing fixtures in the clinic, but they are not connected or used.
- d. Water Heater
A water heater is installed, but is not connected since there is no piped water in the clinic.

F. Electrical Condition

1. Electrical Service
 - a. The electrical service is an overhead connection to the building with a meter base only on the exterior of the building. The service entrance cable routes into the MDP where the main disconnect is installed. The meter base is Nema 3R. The service entrance violates NEC 230-70 by routing the service entrance conductors through the attic space to the MDP.
 - b. The service is a 200 Amp, 120/240V, 1 Ph, 3 wire.
2. Power Distribution
 - a. The MDP is a 200 Amp Cutler Hammer safety Breaker Load Center CH30JJM200 with 30 poles total of which 19 are spare.
 - b. Type THW individual appeared to be #3/0 copper power cables with no ground conductor are routed from the main disconnect to the MDP.
 - c. The branch circuit wiring is installed in conduit with grounds in two conduits which appear to connect feed the patient room branch circuits.
3. Grounding System
 - a. The building has a single ground rod. The metallic piping systems are not bonded.
4. Exterior Elements
 - a. No exterior lighting was installed.
 - b. No exterior power receptacles were installed.
 - c. Telephone service enters at a weatherproof protection test block on the exterior of the building.
5. Electrical devices and lighting
 - a. Receptacles are grounding type.
 - b. The lighting is predominately 4 ft fluorescent T12 (2) lamp surface mounted wrap diffuser fixtures. Support rooms are incandescent type A19 lamped fixtures.
 - c. Interior device plates are non-metallic ivory decorative plates.
6. Emergency System
 - a. No emergency egress signage was installed.

- b. No emergency egress illumination was installed.
- 7. Fire Alarm System
 - a. Battery power smoke detectors were installed. No manual pull stations or visual notification devices were installed.
- 8. Telecommunication
 - a. A voice telephone system is installed consisting of 4 lines by United Utilities.

G. Civil / Utility Condition

- 1. Location of building
 - a. Patient Access

Located in the relative center of the village for ease of access and seems to work fine. It is off of the main road to the airport that is an advantage.
 - b. Service Access

Road access is provided to front and rear entry. Neither stair nor ramp access to rear, or stairs to front entry meet code access requirements. Ramps are excessively steep providing a slipping hazard in winter months.
 - c. Other Considerations:

The facility is located on a flat site and is a good location but soils are just tundra with very little gravel available.
- 2. Site Issues
 - a. Drainage

Drainage from the site is adequate although the south side is lower and looks like it ponds during some times of the year. There is no significant pad on which the building is constructed, just the tundra. Correction would include putting a new extended pad on the site prior to placing the post and pad system, shoring of the site, and new gravel to stabilize.
 - b. Snow

There does not appear to be a snow-drifting problem as the facility sits in the open.
- 3. Proximity of adjacent buildings

There is a home 30 ft to the east and nothing else within 50 feet of the facility.
- 9. Utilities
 - a. Water Supply

The new city water supply combined with the haul system provides adequate water for the facility.
 - b. Sewage Disposal

Sewage disposal is provided by City flush tank and haul system and lagoon.
 - c. Electricity

Power from Village system via overhead wire. See Photos

d. Telephone

Overhead phone with only one phone connection, requiring fax and phone on same line.

H. Existing Facility Floor Plan (Site Plan if available):

We have attached drawings, as we have been able to identify, find, or create as part of this report. We have endeavored to provide all drawings for all the sites; however, in some cases exact existing site plans were not available. We have provided as indicated below:

- A1.1 Existing Site Plan is attached if available
- A1.2 Existing Facility Floor Plan is attached following.
- A1.3 The Existing typical wall section is attached following as required by the report guidelines.
- A2.1 The Addition to the Existing Facility as required to meet ARPCF Space Guidelines is attached following.
- A3.1 The New Clinic Site plan is attached as proposed based on the community input.
- A3.2 The New Denali Commission Clinic Floor Plan meeting the ARPCF Space Guidelines and proposed for this location is attached.

IV. Deficiency Evaluation

A. Deficiency Codes:

The deficiencies are categorized according to the following deficiency codes to allow the work to be prioritized for funding. The codes are as follows:

- 01 Program Deficiencies:** Based on assessment of the facility's ability to support the stated services that are required to be provided at the site.
- 02 Fire and Life Safety Deficiencies:** Based on the identified areas where the facility is not in compliance with provisions of the state building codes including, UBC, UFC, NFPA 101, UMPC, NEC. These are organized sequentially from Architectural
- 03 General Safety:** Based on items that are not necessarily code items but are conditions that are considered un-safe by common design and building practices.
- 04 Environmental Compliance:** Based on non-conformance with DEC regulations, hazardous materials and general sanitation.
- 05 Program Deficiencies:** These are items that are required for delivery of the medical services model currently accepted for rural Alaska. This may include space requirements, functional needs, or other items to meet the delivery of quality medical services.
- 06 Unmet Supportable Space Needs:** These are items that are required to meet the program delivery of the clinic and may not be show or delineated in the Alaska Primary Care Facility Space Guidelines.
- 07 Disability Access Deficiencies:** Items not in compliance with the Americans with Disabilities Act.
- 08 Energy Conservation:** These are items that are required for energy conservation and good energy management.
- 09 Plant Management:** This category is for items that are required for easy and cost efficient management and maintenance of the Physical Plant.
- 10 Architectural M & R:** Items affecting the architectural integrity of the facility, materials used, insulation, vapor retarder, attic and crawlspace ventilation, and general condition of interiors, and prevention of deterioration of structure and systems.
- 11 Structural M & R:** Deficiencies and items affecting the integrity of the building. These include foundations, roof and wall structure, materials used, insulation, vapor retarders, attic and crawlspace ventilation, and general condition of interiors.
- 12 Mechanical M & R:** Deficiencies in plumbing, heating, ventilation, air conditioning, or medical air systems.

- 13 Electrical M & R:** Deficiencies with electrical generating, distribution, fire alarm, and communications systems.
- 14 Utilities M & R:** Deficiencies with the utilities hook-ups, systems, and distribution.
- 15 Grounds M & R:** Deficiencies with the civil site issues, drainage, access, etc.
- 16 Painting M & R:** Deficiencies of painting, exterior, interior, trim and soffit.
- 17 Roof M & R:** Deficiencies in roofing, and related systems including openings.
- 18 Seismic Mitigation:** Deficiencies in seismic structural items or other related issues to seismic design including material improperly anchored to withstand seismic effect.

B. Photographs:

We have provided photographs attached which are noted to describe the various deficiencies described in the narratives and itemized in the summary below. The photos do not cover all deficiencies and are intended to provide a visual reference to persons viewing the report who are not familiar with the facility.

We have included additional photos as Appendix B for general reference. These are intended to add additional information to the specific deficiencies listed and to provide general background information.

C. Cost Estimate General Provisions

1. New Clinic Construction

- **Base Cost**

The Base Cost provided in Section VI of this report is the direct cost of construction, inclusive of general requirements (described below) and contingency for design unknowns (an estimating contingency). The base cost is exclusive of overhead and profit, mark-ups, area cost factors and contingencies. Material costs for the project are all calculated FOB Anchorage and labor rates are based on Davis Bacon wages, regionally adjusted to Anchorage. Transportation costs, freight, Per Diem and similar costs are included in the base costs. The Project Factors and Area Cost Factor are multipliers of the base costs.

General Requirements are based on Anchorage costs without area adjustment. It is included in the Base Cost for New Clinics. These costs are indirect construction cost not specifically identifiable to individual line items. It consists of supervision, materials control, submittals and coordination, etc. The general requirements factor has not been adjusted for Indian Preference.

The Design Unknowns Contingency is an estimator's contingency based on the schematic nature of the information provided, the lack of any real design, and the assumption that any project will encompass related work not specifically mentioned.

- **Project Cost Factors**

- Equipment Costs for new medical equipment has been added at 17% of the cost of new floor space.
- Design Services is included at 10% to cover professional services including engineering and design.
- Construction Contingency is included at 10% of the Base Costs to cover changes encountered during construction.
- Construction Administration has been included at 8% of the Base Costs. This is for monitoring and administration of the construction contract.

- **Area Cost Factor**

The Area Cost Factor used in the cost estimates for this facility is shown in Section VI of this report. The area cost factors are taken from a recent study completed for the Denali Commission for statewide healthcare facilities. The numbers are the result of a matrix of cost variables including such items as air travel, local hire costs, room and board, freight, fire protection equipment, foundation requirements, and heating equipment as well as contractor costs such as mobilization, demobilization, overhead, profit, bonds and insurance. These parameters were reconsidered for each village, following the site visit, and were modified, if necessary.

- **Estimated Total Project Cost of New Building**

This is the total estimated cost of the project, including design services. The construction contract will be work subject to Davis Bacon wages, and assumes construction before year-end 2001. No inflation factor has been applied to this data.

2. Remodel, Renovations, and Additions

- **Base Cost**

The Base Cost provided in the specific deficiency sheets is the direct cost of construction, exclusive of overhead and profit, mark-ups, area cost factors and contingencies. Material costs for the project are all calculated FOB Anchorage and labor rates are based on Davis Bacon wages, regionally adjusted to Anchorage. Most of the deficiency items do not constitute projects of sufficient size to obtain efficiency of scale. The estimate assumes that the projects are completed either individually, or combined with other similar projects of like scope. The numbers include moderate allowances for difficulties encountered in working in occupied spaces and are based on remodeling rather than on new construction costs. Transportation costs, freight, Per Diem and similar costs are included in the base costs. The General Requirements, Design Contingency and Area Cost Factors are multipliers of the base costs.

The cost of Additions to clinics is estimated at a unit cost higher than New clinics due to the complexities of tying into the existing structures.

Medical equipment is calculated at 17% of Base Cost for additions of new space only and is included as a line item in the estimate of base costs.

- **General Requirements Factor**

General Requirements Factor is based on Anchorage costs without area adjustment. The factor is 1.20. It is multiplied by the Base Cost to get the project cost, exclusive of planning, architecture, engineering and administrative costs. This factor assumes projects include multiple deficiencies, which are then consolidated into single projects for economies of scale. The general requirements factor has not been adjusted for Indian Preference.

- **Area Cost Factor**

The Area Cost Factor used in the cost estimates for this facility is shown in Section VI of this report. The area cost factors are taken from a recent study completed for the Denali Commission for statewide healthcare facilities. The numbers are the result of a matrix of cost variables including such items as air travel, local hire costs, room and board, freight, fire protection equipment, foundation requirements, and heating equipment as well as contractor costs such as mobilization, demobilization, overhead, profit, bonds and insurance. These parameters were reconsidered for each village, following the site visit, and were modified, if necessary.

- **Contingency for Design Unknowns (Estimating Contingency)**

The Design Unknowns Contingency is an estimator's contingency based on the schematic nature of the information provided, the lack of any real design, and the assumption that any project will encompass related work not specifically mentioned. The factor used is 1.15.

- **Estimated Total Cost**

This is the total estimated bid cost for work completed under Davis Bacon wage contracts, assuming construction before year-end 2001. This is the number that is entered in the front of the deficiency form. No inflation factor has been applied to this data.

- **Project Cost Factors**

Similar to new clinics, the following project factors have been included in Section VI of this report.

- Design Services is included at 10% to cover professional services including engineering and design.
- Construction Contingency is included at 10% of the Base Costs to cover changes encountered during construction.
- Construction Administration has been included at 8% of the Base Costs. This is for monitoring and administration of the construction contract.

- **Estimated Total Project Cost of Remodel/Addition**

This is the total estimated cost of the project including design services, the construction contract cost for work completed under Davis Bacon wages and assuming construction before year-end 2001. No inflation factor has been applied to this data.

V. Summary of Existing Clinic Deficiencies

The attached sheets document the deficiencies; provide recommendations on how to make repairs or accommodate the needs and provide a cost estimate to accomplish the proposed modifications. The summary addresses individual deficiencies. If all deficiencies were to be addressed in a single construction project there would be cost efficiencies that are not reflected in this tabulation.

These sheets are reports from the Access Data Base of individual Deficiencies that are compiled on individual forms and attached for reference.

Refer to Section VI. New Clinic Analysis for a comparison of remodel/addition to new construction.

VI. New Clinic Analysis

The analysis of whether a new clinic is required is based on the Denali Commission standard of evaluation that "New Construction is viable if the cost of Repair/Renovation and Addition exceeds 75% of the cost of New Construction".

We have therefore determined the cost of a New Clinic Construction to meet the Alaska Rural Primary Care Facility (ARPCF) Space Guidelines for a size of village. We have also determined the cost of Repair/Renovation & Addition to the existing Clinic to meet the same ARPCF Space Guidelines.

A. The cost of a New Denali Commission 2000 SF Large Clinic in Kasigluk is projected to be:

• Base Anchorage Construction Cost per s.f.		\$183
• Project Cost Factor:	@ 45%	\$ 82
Medical Equipment	17%	
Construction Contingency	10%	
Design Fees	10%	
Construction Administration	8%	
• Multiplier for Village	@ 1.70	\$186
Adjusted Cost per SF		\$451

Projected Cost of a New Clinic: 2500 s.f. X \$451 = \$1,127,500

B. The cost of the Repair/Renovation and Additions for the existing Clinic are projected to be:

• Code & Condition Repairs/Renovations		
Cost from Deficiency Summary		\$519,021
• Remodel/Upgrade work (See Def. Code 19)		
100% of clinic 1372 SF = 1372 SF @ \$104/SF		\$187,944
• Additional Space Required by ARPCF (See Def. Code 01)		
○ Base Anchorage Cost		\$183
Additional Costs –		\$115
Medical Equipment	17%	
General Requirements	20%	
Estimation Contingency	15%	
○ Multiplier for Village	@ 1.70	\$210
Adjusted Cost per SF		\$508
Total Addition Cost of 1130 SF @ \$508		\$574,266
• Project Cost Factor:	@ 28%	\$358,745
Construction Contingency	10%	
Construction Administration	8%	
Design Fees	10%	

Total cost of remodel/addition \$1,639,976

C. Comparison of Existing Clinic Renovation/Addition versus New Clinic:

Ratio of Renovation/Addition versus New Clinic is:

$$\text{\$1,639,976} / \text{\$1,127,500} = 1.45 \times \text{cost of New Clinic}$$

Based on Denali Commission standard of evaluation; the remodel/addition costs are more than 75% of the cost of new construction. A new clinic is recommended for this community.

* Note: Village factors may have been adjusted for recent 2001 cost adjustments and may have changed from previously published data distributed to the villages.

VII. Conclusions and Recommendations

The existing Kasigluk Clinic has served the community well for many years. Base on current ANTHC and YKHC delivery model for health care to rural Alaska, the facility is not adequate in size or in condition to meet these needs. The existing structure could be adapted for many other less clinical and medically stringent uses without extensive remodeling.

After careful review it is the recommendation of the consultant team that a new Denali Commission Large 2500 SF Clinic be considered for Kasigluk. The addition of approximately 1130 SF of clinic space required by the current ARPCF Program Space Guidelines and the major renovation and upgrading of the existing clinic space will cost 1.45 times the cost of a new clinic. This results in the recommendation of a new clinic for this village.

We reviewed the options with the local community leaders the consensus was that the New Large Clinic would meet the current community needs and for years to come. In addition, they agreed and provided a new clinic site adjacent to the existing Health Clinic and adjacent to city facilities. The new site is adjacent to all existing city utilities.

The community believes this is a good solution and will produce the best return for funds invested in a clinic that meets the needs of Kasigluk community and is aggressively moving to assist in any way to accomplish this goal.

Appendix A: Specific Deficiencies Listings

The attached sheets represent the individual deficiencies identified for this project and the corrective action required to meet current codes and standards of construction. The deficiencies are further summarized in Section V. Summary of Existing Clinic Deficiencies.